

XP-002155578

AN - 1993-318011 [40]

A - [001] 017 04- 05- 08& 18- 19& 228 230 231 24- 250 259 397 431 434
436 54& 58& 597 600 724

- [002] 017 04- 05- 08& 19- 20& 230 231 250 259 397 431 434 436 54& 546
58& 597 600 724

- [003] 017 04- 231 24& 240 259 334 397 431 434 436 50& 54& 58& 597 600

AP - JP19920029251 19920217

CPY - SANW-N

DC - A11 A97 F09

FS - CPI

IC - D21F11/00 ; D21H17/28 ; D21H27/30

KS - 0158 0161 0164 0167 0170 0201 0203 0231 1989 2000 2001 2002 2022 2424
2430 2504 3002 3252 3318

MC - A03-A00A A10-E01 A11-B05 A11-B09B A12-A04 A12-B03A F05-A06A F05-A06B
F05-A07

PA - (SANW-N) SANWA KOSAN KK

PN - JP5230792 A 19930907 DW199340 D21H17/28 005pp

PR - JP19920029251 19920217

XA - C1993-141659

XIC - D21F-011/00 ; D21H-017/28 ; D21H-027/30

AB - J05230792 Spray starch for improving ply bond strength of multi-ply
board consists of an aq. dispersion of (A) anionic starch, (B)
cationic starch and/or amphoteric starch and contains anionic gps. and
cationic gps.

- Papermaking comprises spraying the aq. dispersion over the surface of
wet web and combining the wet web together.

- ADVANTAGE - Stable and high ply bond strength is obtd. independent of
the kinds of paper machines or boards used. The ratio of (A)/(B) is
pref. 5/95 and 95/5. (A) is pref. e.g. urea-phosphated starch or
urea-sulphamine starch having degree of substitution of at least 0.01.
(B) is e.g. 3-trimethylammonium-2-hydroxypropyl starch or
2-diethylaminoethyl starch having degree of substitution of 0.01.

- In an example, ungelatinised anionic urea-phosphated corn starch
having degree of substitution of P of 0.020 and ungelatinised cationic
3-trimethylammonium-2-hydroxypropyl corn starch were mixed in 50/50
ratio, and the mixt. was dispersed in water. (Dwg. 0/0)

IW - SPRAY STARCH IMPROVE PLY BOND STRENGTH MULTI PLY BOARD CONSIST AQUEOUS
DISPERSE ANION CATION AMPHOTERIC STARCH

IKW - SPRAY STARCH IMPROVE PLY BOND STRENGTH MULTI PLY BOARD CONSIST AQUEOUS
DISPERSE ANION CATION AMPHOTERIC STARCH

NC - 001

OPD - 1992-02-17

ORD - 1993-09-07

PAW - (SANW-N) SANWA KOSAN KK

TI - Spray starch for improving ply bond strength of multi-ply board -
consists of aq. dispersion of anionic-cationic- and/or amphoteric
starch(es)